



C A L I F O R N I A E N E R G Y C O M M I S S I O N

CALGreen Background Energy Efficiency Voluntary Provisions

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2016 Building Energy Efficiency Standards

2016 CALGreen

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Authority and Process

Public Resources Code (PRC 25402): Reduction of wasteful, uneconomic, inefficient or unnecessary consumption of energy

- Residential and Nonresidential Building Standards first adopted in 1978 and updated every 3-4 years
- The Standards are required to be cost effective (objective for CALGreen Tier I)
- The Standards are developed in an open public process

California Green Building Standards Code (CALGreen)

- 2007 Governor Schwarzenegger directed CBSC to develop green building standards.
- 2010 CALGreen Standards went into effect on January 1, 2011.
- Established the minimum requirements for Green Building Construction.
- Reduce greenhouse gas emissions, energy consumption and water use.



Policy Drivers

- Governor's "Clean Energy Jobs Plan"
- Zero Net Energy: **Residential by 2020** and Nonresidential by 2030
- CARB Climate Change Scoping Plan
- California Long Term Energy Efficiency Strategic Plan



2016 Standards Update Process

Standards Update Includes the Following Phases:

Pre-Rulemaking

1. Stakeholder Meetings - IOU/POU CASE Teams
2. Staff Workshops – Draft Standards

Rulemaking:

1. 45-day language
2. 15-Day language
3. Adoption Business Meeting



2016 Standards Update Process

April 4, 2014	CBIA/CEC Standards Forum
April – May 2014	IOU CASE Stakeholder Meetings
May – Aug 2014	CEC Staff Public Workshops
November 2014	Draft 2016 Standards
January 2015	Release 45-day Language
April 2015	Release 15-Day Language
May 2015	Adoption at Business Meeting
January 1, 2017	Effective Date of the Standards



CALIFORNIA ENERGY COMMISSION

2016 Standards Update Process

Staff Workshops	April 29 10:00 Hearing Room A	June 12 9:00 Hearing Room B	June 24 9:00 Hearing Room A	July 9 09:00 Hearing Room A	July 21 10:00 Hearing Room A	July 23 10:00 Hearing Room B (This may become a PM meeting)	August 6 10:00 Hearing Room A
Measures	TDV LCC	Opaque envelope U-factors HVAC and WH Equipment Efficiency Thermally Driven Cooling Door and Windows Switch Controls Fan efficiency Direct digital Controls HVAC Economizer Modifications Elevator Lighting and HVAC Controls Escalator and Moving Walkway Speed Controls	Residential Lighting Nonresidential Indoor Lighting Power LPDs Nonresidential Lighting Control and Partial On Occupancy Sensors Outdoor lighting LPAs Outdoor lighting controls, including Bi-level controls	TDV LCC	HPAD/DCS Minimize Duct Losses Residential High Performance Walls Tankless Water Heaters Res HVAC Field Verification and Diagnosis	Residential ACM Nonresidential ACM PV Credit Whole House Fan Credit	CALGreen



CALGreen General Outline

Scope and Requirements

- Mandatory Requirements and Voluntary Provisions
- Residential and Nonresidential
- Newly Constructed & Additions and Alterations
- Planning and Design, Water Efficiency, Material Conservation, Indoor Environmental Quality and **Energy Efficiency**
- The mandatory energy efficiency requirements are to comply with the Building Energy Efficiency Standards.
- The voluntary energy efficiency provisions are developed by the Energy Commission



Local Energy Standards Approval

- CALGreen Voluntary Provisions must be adopted by local jurisdictions to be enforced.
- CALGreen Voluntary Provisions that exceed the Energy Efficiency Standards must be approved by the Energy Commission.
- Applications must come from the local jurisdiction and be compliant with Title 24, Part 1, Section 10-106.
- The Energy Commission posts approved local energy standards on their web site.

<http://www.energy.ca.gov/title24/2013standards/ordinances/>



Title 24, Part 6 Section 10-106 Application Requirements

- A copy of the ordinance.
- A study or analysis showing the expected energy savings and the cost effectiveness of the ordinance.
- A statement/finding that the ordinance will require buildings to “consume no more energy than is permitted by (Title 24) Part 6.”
- The date the ordinance, energy savings and cost-effectiveness study were presented to Council/Board in a **Publicly Noticed Meeting**.
- Evidence of CEQA compliance.
- A letter to the Executive Director assuring him that the City/County will continue to enforce Title 24, Part 6 as well as the proposed Ordinance.



Questions and Comments

